

What is claimed is:

1. A housing structure of vehicle-mounted electronic equipment comprising:

5 a connector housing into which a large number of contact pins are press-fitted and a counter-connector is inserted;

a cover that is integrally formed with said connector housing of a fire retardant resin and is provided with a canopy part and an annular circumferential wall part;

10 an electronic substrate temporarily fixed onto an inner wall of said annular circumferential wall part, and to which said contact pins are connected; and

15 a highly heat-transfer base that is disposed in contact with said electronic substrate so that a heat generated by the heating part mounted on said electronic substrate is transferred and dissipated, and is provided with mounting lugs for mounting the base on a vehicle body;

wherein said annular circumferential wall part is provided with an annular groove in which a sealant is inserted and plural screw holes located at the outside of said annular groove;

20 said base is provided with an annular protrusion snapped into said annular groove and plural through holes located at the outside of said annular protrusion; and

25 by inserting fixing screws into said screw holes through said through holes, said electronic substrate is held between said annular circumferential wall part and said base.

2. The housing structure of vehicle-mounted electronic equipment according to claim 1, wherein said electronic substrate is temporarily fixed by press-fitting a protrusion part provided on the inner wall of said annular circumferential wall part into  
30 a mounting hole provided on said electronic substrate.

3. The housing structure of vehicle-mounted electronic equipment according to claim 1,

wherein said cover integrally formed with said connector housing is composed of a fire retardant resin, in which  
5 polybutyleneterephthalate resin is used as a base material and which is filled with 15 to 40 % by weight of glass filler; said base is manufactured by aluminum die-casting; and an adhesive sealant made of a room-temperature-setting liquid silicone rubber is used as said sealant.

10 4. The housing structure of vehicle-mounted electronic equipment according to claim 1,

wherein said canopy part is provided with a column having a central screw hole with one end blocked at a central position thereof; said base is provided with a pedestal, on which the electronic  
15 substrate is placed, and a central through hole passing through said pedestal substantially at the central position thereof; said cover, said electronic substrate, and said base are integrally formed and reinforced by a central fixing screw inserted into said central screw hole through said central through hole; and a waterproof sealant  
20 is applied to a head of said central fixing screw.

5. The housing structure of vehicle-mounted electronic equipment according to claim 1, further comprising:

a copper-foil area that is electrically connected to the heating part mounted on said electronic substrate and disposed on  
25 the underside of said electronic substrate; a heat-transfer soft insulating layer that covers said copper-foil area; and a heat-transfer protrusion provided on said base.

6. The housing structure of vehicle-mounted electronic equipment according to claim 1, further comprising:

30 a copper-foil area that is electrically connected to the

heating part mounted on said electronic substrate and disposed on the underside of said electronic substrate; a heat-transfer soft insulating layer that covers said copper-foil area; and a heat-transfer protrusion provided on said base;

5            wherein said soft insulating layer is composed of a room-temperature-setting liquid silicone rubber filled with a heat-transfer filler.

7. The housing structure of vehicle-mounted electronic equipment according to claim 1, further comprising:

10           a copper-foil area that is electrically connected to the heating part mounted on said electronic substrate and disposed on the underside of said electronic substrate; a heat-transfer soft insulating layer that covers said copper-foil area; and a heat-transfer protrusion provided on said base;

15           wherein said soft insulating layer is composed of a heat-transfer elastic insulating sheet.